

REPORT ON ELECTRIC FITTINGS.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Received at London Office... 13 MAR 1931

Date of writing Report 10. 2. 1931. When handed in at Local Office 14. 3. 1931 Port of GLASGOW.

No. in Survey held at GLASGOW AND GREENOCK. Date, First Survey 24. 12. 30 Last Survey 5 - 3 - 1931
Reg. Book. (Number of Visits.....11.....)

91519 on the M.V. "MACDHUI." Tons { Gross 4561
Net 2626

Built at GLASGOW. By whom built BARCLAY CURLE & CO. LTD. Yard No. 644 When built 1931

Owners BURNS PHILLIP & CO. LTD. Port belonging to SYDNEY.

Electric Light Installation fitted by THE SUNDERLAND FORGE & ENG. CO. LTD. Contract No. 644 When fitted 1931

Is the Vessel fitted for carrying Petroleum in bulk No!

System of Distribution Double wire

Pressure of supply for Lighting 220 volts, Heating 220 volts, Power 220 volts.

Direct or Alternating Current, Lighting Direct Power Direct

If alternating current system, state frequency of periods per second

Has the Automatic Governor been tested and found efficient when the whole load is suddenly thrown on or off Yes

Generators, do they comply with the requirements regarding rating Yes, are they compound wound Yes
are they over compounded 5 per cent. Yes, if not compound wound state distance between each generator

Where more than one generator is fitted are they arranged to run in parallel Yes, is an adjustable regulating resistance fitted in series with each shunt field Yes

Are all terminals accessible, clearly marked, and furnished with sockets Yes, are they so spaced or shielded that they cannot be accidentally earthed, short circuited, or touched Yes Are the lubricating arrangements of the generators as per Rule Yes

Position of Generators Port Side of Main Engine Room

is the ventilation in way of the generators satisfactory Yes, are they clear of all inflammable material Yes

if situated near unprotected woodwork or other combustible material, state distance of same horizontally from or vertically above the generators and, are the generators protected from mechanical injury and damage from water, steam or oil Yes

are their axes of rotation fore and aft Yes

Earthing, are the bedplates and frames of the generating plant efficiently earthed Yes are the prime movers and their respective generators in metallic contact Yes

Main Switch Boards, where placed Port Side of Engine Room at Main Deck

If the generators and main switchboard are not placed in the same compartment, is each generator provided with a fuse on each insulated pole as near as possible to the terminals of the generator, additional to that provided on the main switchboard

Switchboards, are they placed in accessible positions, free from inflammable gases and acid fumes Yes

are they protected from mechanical injury and damage from water, steam or oil Yes, if situated near unprotected woodwork or other combustible material, state distance of same horizontally from or vertically above the switchboards and

are they constructed wholly of durable, non-ignitable non-absorbent materials Yes, is all insulation of high dielectric strength and of permanently high insulation resistance Yes, if semi-insulating material is used, are all conducting parts insulated from the slab with mica or micanite or other non-hygroscopic insulating material, and the slab similarly insulated from its framework Yes

and is the frame effectively earthed Yes Are the fittings as per Rule regarding:— spacing or shielding of live parts

Yes, accessibility of all parts Yes, absence of fuses on back of board Yes, proportion of omnibus bars Yes, individual fuses to voltmeter, pilot or earth lamp Yes, connections of switches Yes

Main Switchgear, description of switchgear for each generator and each outgoing circuit, and arrangement of equalizer switches Triple Pole overload

Time Lag & Reverse Current Circuit Breaker for each Main Generator. (3rd Pole acting as Equaliser). Double Pole Change over

Switch & Fuses for Steering Gear Motors & Bakers Oven, all other outgoing circuits having a Double Pole Switch & Fuses with exception of Blench Ring Mains which have Double Pole Overload & Time Lag Circuit Breakers.

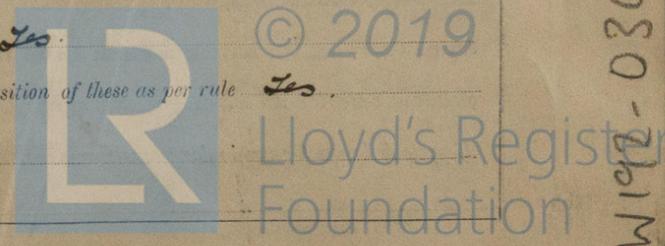
Instruments on main switchboard 4 for Gen's ammeters 4 voltmeters synchronising device for paralleling purposes.

Earth Testing, state what means are provided at the main switchboard for indicating the state of the insulation of the system Earth Lamp switch

& Fuse on each pole

Switches, Circuit Breakers and Fusible Cut-outs, do these comply with the requirements of the Rules Yes

Joint Boxes Section and Distribution Boards, is the construction, protection, insulation, material, and position of these as per rule Yes



All Conductors are of annealed copper conforming to British Standard Specification No. 7.
 The Insulated Conductors are guaranteed to withstand the immersion and resistance tests specified in the Rules.
 The foregoing is a correct description.

p. pro. THE SUNDERLAND FORGE & ENG. CO. LTD. *Thos Thompson* Electrical Engineers. Date 14.2.31.

COMPASSES.

Distance between electric generators or motors and standard compass *106 feet*
 Distance between electric generators or motors and steering compass *96 feet*
 The nearest cables to the compasses are as follows:—
 A cable carrying *5.3* Ampères *10* feet from standard compass *10* feet from steering compass.
 A cable carrying *18* Ampères *10* feet from standard compass *led into* feet from steering compass.
 A cable carrying *18* Ampères *led into* feet from standard compass *10* feet from steering compass.
 Have the compasses been adjusted with and without the electric installation at work at full power *yes*
 Has the effect of switching on and off circuits, motors and other electro-magnetic apparatus within the vicinity of the compasses been noted *yes*
 The maximum deviation due to electric currents was found to be *nil* degrees on *any* course in the case of the standard compass, and *nil* degrees on *any* course in the case of the steering compass.

Geo Barnes Builder's Signature. Date *9/3/31*

Is this installation a duplicate of a previous case If so, state name of vessel

General Remarks (State quality of workmanship, opinions as to class, &c.)

This installation has been fitted on board under special survey, tested under full working conditions and found satisfactory. The materials and workmanship were found to be good and sound.

It is submitted that this installation is in accordance with the Rules.
Elec Light
SA 19/3/31

Total Capacity of Generators *544* Kilowatts.

The amount of Fee ... £ *45:2:0* When applied for, *17 MAR 1931*

Travelling Expenses (if any) £ *—* When received, *20/3/31*

W. H. ...
 Surveyor to Lloyd's Register of Shipping.

Committee's Minute *GLASGOW 17 MAR 1931*

Assigned *Elec Light*



Im. 11.28.—Transfer. (The Surveyors are requested not to write on or below the space for Committee's Minute.)

14/3/31